

Planning Meaningful Curriculum

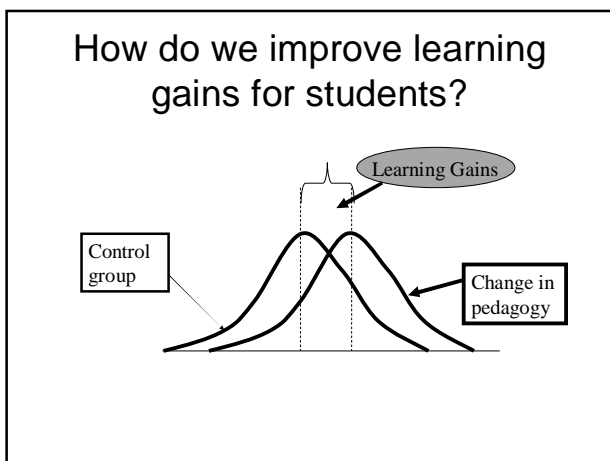
Session 2
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Findings from QSRLS

Individual teacher and classroom variables have a greater variance in student learning gains than school level variables

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We are the ones that make the difference!



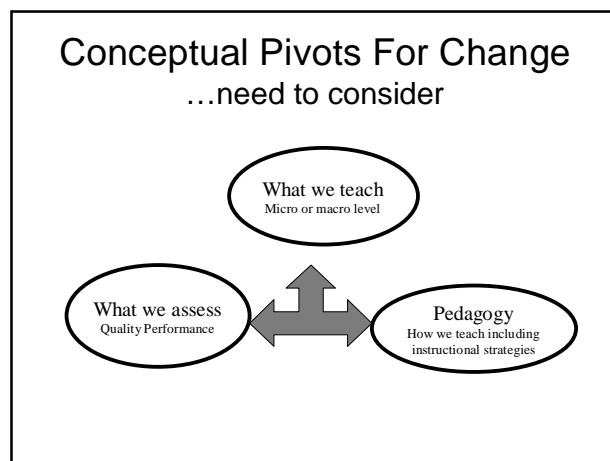
Hints and ideas?

- Pedagogy is the Key!!
 - It is not just about curriculum documents and unit overviews
- Develop or adopt a common language for planning and assessment
- Identify the skills and dispositions students will require for rich task and explicitly teach them.

Students know how to learn in more ways than we know how to teach them

Teachers need a “toolkit” (repertoires of strategies that “work”)

All students can learn, but not necessary on the same day or the same way.



What to Teach (Bill Spady - micro or macro level)

- We need to think beyond teaching just curriculum to developing futuristic learners
- We need to take the essential learnings/outcomes from the KLA's and use them as vehicles to achieve the "Exit" outcomes
- Exit Outcomes are not about the things they "have done" within the Educational System, it is about what they will need to know and do in the future



Macro Level: Sample Exit Outcomes

Active global contributor	Self-directed, life long learner	Socially responsible citizen
Complex, knowledgeable thinker	Cooperative, creative problem solver	Effective communicator
Environmentally responsible contributor	Creative Quality Producer	Vision Empathetic Leaders and Collaborators

Unpacking Exit Outcomes (articulate what they really mean)

Complex Knowledgeable Thinker who:

- Solves problems critically
- Create original ideas and solutions
- Understands and applies system thinking

Effective communicator who:

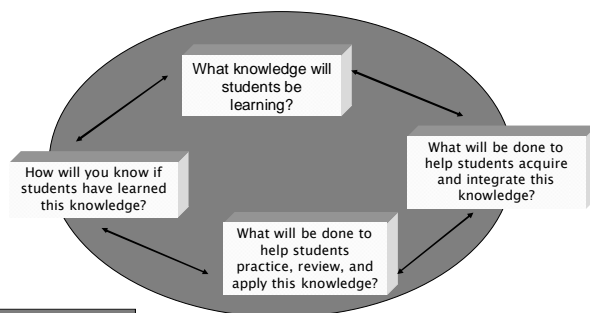
- Read with understanding
- Interpret information
- Interact through listening & speaking
- Writes clearly



A model for planning

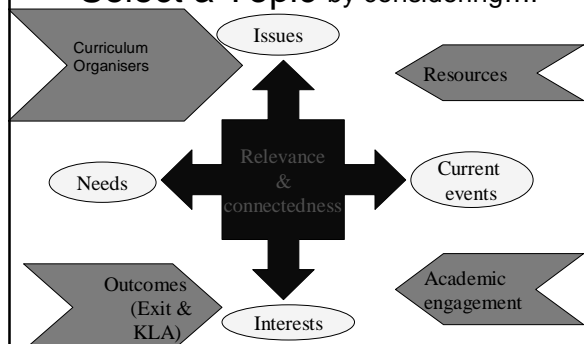
There are multiple ways of planning, part of your journey is to reflect, adopt, adapt and modify ideas that appeal to you.

What questions might teachers be asking when planning for instruction?



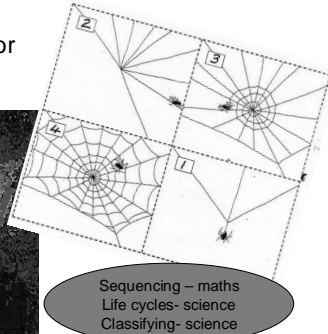
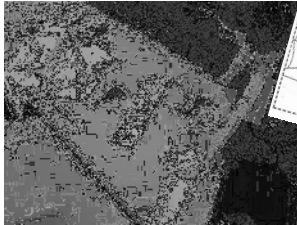
McRel 2005

Step #1 Select a Topic by considering....

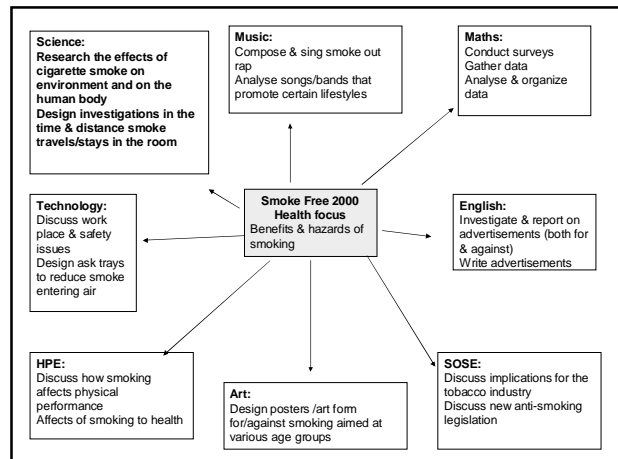


Integrating Curriculum may be a preferred option depending on school and grade

- Most topics provide ample opportunities for integration



Sequencing – maths
Life cycles- science
Classifying- science



Reflection



- Think of a unit of work you are planning or have done and briefly identify the focus. What they need to know and do.

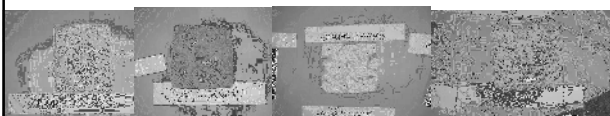
Step # 2 Identifying Deep Understandings

- Deep Understanding is shown when students develop relatively complex understandings and demonstrate them by discovering relationships, solving problems, constructing explanations, and drawing conclusions.
- Keep making explicit what the connections are - i.e. how is this understanding connecting you to the world.

5 Whys

Deep Understanding

- People often put on "masks" for protection – either physically or emotionally



Sample Deep Understandings

We need to critically reflect on past and present experiences to stretch our boundaries in a constructive manner	Stories are problematic because they are created by authors who may not have a neutral viewpoint	People often put on "masks" for protection – either physically or emotionally	Man's impact on the local environment needs to be constantly evaluated to make positive changes for the future.
All animals and plants have basic needs, which must be met for survival.	Humans can impact on environments, both positively & negatively.	Life (and stories) don't always have the ending you want.	Our past helps shape who we are.
Through creativity and a desired need, humans continually adapt and modify things to improve our lifestyles	Conservation is based on the willingness to preserve an environment in order to appreciate it for the future	Laws are based on protecting the rights and safety of individuals and communities	There are many factors that influence our choices and decisions .

Reflection

- Work with a partner and think of a unit of work you are going to teach or have taught and come up with a Deep Understanding.
 - 5 Whys



Step #3

Develop Significant Questions

Problem-based curriculum is identified by lessons in which students are presented with a specific real, practical, or hypothetical problem (or set of problems) to solve.

- Focus questions help reach the deep understandings and to focus the learning experiences provided
- This is the essential difference between the macro and the micro (Spady)

Significant Questions



- Who will survive?

Sample Significant Questions

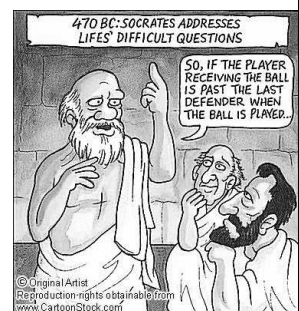
Why be healthy?	Who will survive?	What makes me special?
What can we learn from different cultures?	Can individuals make a difference?	What are we contributing to the future? Is this the path we want?
Why be an informed citizen?	What does it mean to be an Australian?	Who makes history?

Characteristics of good guiding question:

- Open ended yet focus inquiry on a specific topic
- Non-judgmental, but answering them requires high-level cognitive work, such as the development of a rich description, model, evaluation or judgement
- Contain emotive force and intellectual bite
- Often based on the 6 queries that newspaper articles answer: *who, what, when, where, how and why*

Reflection

- With your deep understanding what would be a significant question that students could work towards in your unit?



Step #4

High Quality Performance

Evidence of their Learning

High Quality Performance requires students to demonstrate their understanding of a concept by utilising components of Intellectual quality eg:

- Manipulate information and ideas in ways that transform their meaning and implications.
- By combining facts and ideas in order to synthesize, generalize, explain, hypothesize or arrive at some conclusion or interpretation.
- Manipulate information and ideas through processes that allows students to solve problems and discover new (for them) meanings and understandings.

Using Knowledge Meaningfully

Six reasoning processes

- Decision Making: Generating and applying criteria to select from among seemingly equal alternates
- Problem Solving: Overcoming constraints or limiting conditions that are in the way of pursuing goals
- Invention: Developing unique products or processes that fulfill perceived needs
- Experimental Inquiry: Generating and testing explanations of observed phenomena
- Investigation: Identifying and resolving issues about which there are confusions or contradictions
- Systems Analysis: Analyzing the parts of a system and the manner in which they interact.

Refocus

- Some times it is easier to identify the end point in terms of what you want the students to do with the information before fine tune your significant question and unit overview.



Reflect

- Look at complex reasoning processes: identify which CRP contextualises your unit.
- There might be more than 1.



Step #5

Identifying what students need to “know” & “do”

- The cognitive, cultural, linguistic and social skills that need to be acquired to achieve the tasks.
- Each KLA has their own essential learnings/outcomes with “ways of working” & “knowledge”
- Students will need scaffolding, modeling & practice to master these effectively
- **NB essential learnings are micro-level of planning**

Reflection

- For your unit consider...
 - What **knowledge** will students be using meaningfully. What will they demonstrate in terms of what they know and can do?
 - What **reasoning process** will they be using?
 - What will be done? What is the expected end product or outcome?

Step #6 Identifying Deep Knowledge

- *Deep knowledge* concerns the central ideas of a topic or discipline. Knowledge is deep or thick because such knowledge is judged to be crucial to a topic or discipline.
- Declarative (content) and Procedural (skill) Knowledge

Sample Deep Knowledge

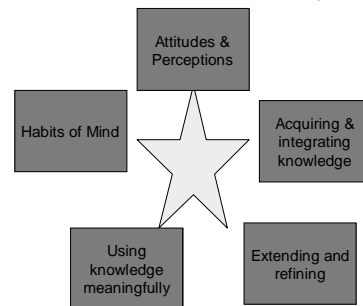
The properties of material	Needs of living things	Genetics
Transfer & transformation of energy	Effects of global trends on beliefs & values	Rights & responsibilities in various settings
Health & nutrition	Design Principles	Events that have shaped Australia

Step #7 Sequencing Learning Experiences

- Developmental sequencing of skills and knowledge require to complete tasks
- Scaffolding and modeling needs to be included
- Focus on un-cluttering the curriculum
- during planning keep checking the relevance of the activities against the deep understandings.
- Also consider the thinking processes you want the students to develop

Step #8 Develop individual lessons

consider the following...



Example Unit – Level 3

Selecting a topic #1 Looking after our local environment

- Students cooperatively develop and implement an action plan to improve an identified area of concern within the local community. They will request help, resources and advice from local community groups.

Why do this topic? #2 Deep Understandings

- We have a responsibility as a member of the community to care for our environment
- Man's impact on the local environment needs to be constantly evaluated to make positive changes for the future.
- We can make a difference for the future

#3 Significant Question

- Why should we be responsible for looking after our sand dunes?
- Can individuals make a difference?

#4 High quality Performance – what are they going to produce through the unit

- Systems Enquiry - Students will need to produce a report (using both written and photographic material) that documents an action plan from start to finish that can be implemented to improve the local sand dunes . This will be given back to the local community, including future recommendations for the care of the local area.

#4 High quality Performance – what are they going to produce through the unit

- Problem Solving- Students request information from local council about community groups that could assist in obtaining resources and information to enhance about the local area. They identify the council's priorities in the area and what strategies are currently being done to promote the ideas to the community. Students use all gather information to develop an action plan based on their problem solving strategies that will promote awareness and care of the dunes.

Other Items produced through unit

- Letters of requests
- Decision making process
- Action Plans including a diary
- Maps (Sand dune area, Stummers Creek, Directions to the local area

5 What students need to know and do (linking essential learnings

SOSE - Knowledge & understanding

- .Place & Space
 - Sustainability required a balance between using, conserving and protecting environments and involves decisions about how resources are used and managed

SOSE – ways of working

- Apply strategies to contribute effectively to representative groups and to participate in civic activities
- Identify issues and use common and own focus questions

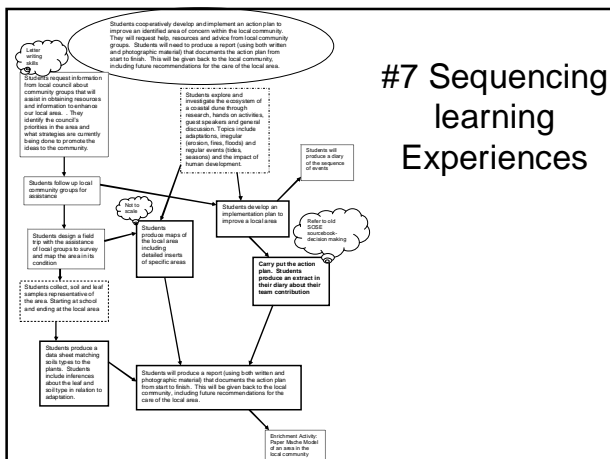
5 What students need to know and do (linking essential learnings)

- Science - Knowledge & understanding
- Science as a human endeavour
 - Scientific knowledge can help to make natural, social and built environments sustainable at scale ranging from local to global
- Earth and Beyond
 - Changes to the earth occur over varying time periods and can be interpreted using geological evidence
- Life and Living
 - Different feeding relationship exists within an ecosystem
- Science – ways of working
- Collect and analyse first and second hand data, information and evidence
- Select and use scientific tools and technologies suited for the investigation
- Reflect on learning, apply new ideas and identify future applications

#6 Knowledge required

- | Declarative Knowledge | Procedural Knowledge |
|---|---|
| <ul style="list-style-type: none"> ▪ Local native vegetation ▪ Dune formation ▪ Weathering & erosion ▪ Tides ▪ Impact of humans to natural areas | <ul style="list-style-type: none"> ▪ Letter writing ▪ Interpreting & producing maps ▪ Negotiating with peers and others ▪ Collecting and analysing field data |

#7 Sequencing learning Experiences



Letter writing skills

Students request information from local council about community groups that will assist in obtaining resources and information to enhance our local area. They identify the council's priorities in the area and what strategies are currently being done to promote the ideas to the community.

Dotted boxes not assessed formally

Bold boxes are assessed

Students produce a data sheet matching soils types to the plants. Students include inferences about the leaf and soil type in relation to adaptation.

#8 Developing Individual lessons

"Our mission as educators is to help every child become a more active, engaged, committed and skillful learner, not just for a test, but for a lifetime."

James Bellanca



